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The study of chiral-odd GPDs using deeply virtual π^0 electroproduction with CLAS12 at Jefferson

Lab.
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The interpretation of deeply virtual electroproduction of photons and mesons in term of Generalized Parton Distributions (GPDs) allows us to access the information about correlations between quark longitudinal momentum and transverse spatial distributions. In particular, the measurements of pseudoscalar meson electroproduction constrain largely unknown chiral-odd GPDs \bar{E}_T and H_T which contain information on quark transverse spin densities in unpolarized and polarized nucleons. The CLAS detector at Jefferson Lab has provided the data on π^0 and η electroproduction over wide kinematic range for Q^2 up to 5 GeV². These data demonstrated the unique sensitivity of pseudoscalar meson electroproduction to the chiral-odd GPDs. The efforts continue with new experimental measurements of π^0 electroproduction using recently upgraded CLAS12 detector and 10.6 GeV polarized electron beam with the kinematic range extending up to $Q^2=8$ GeV². In this talk, we will present the current status of π^0 electroproduction analysis and review the plans for extraction of underlying GPDs at Jefferson Lab.